

Message

From: Peralta, Maria [Peralta.Maria@epa.gov]
Sent: 12/8/2017 8:18:20 PM
To: McBryde, Dan [mcbryde.dan@epa.gov]; Bryson, James [bryson.james@epa.gov]; Jim Bryson [bryson.james@gmail.com]; Wehrly, Linc [wehrly.linc@epa.gov]
CC: Dalton, Joel [Dalton.Joel@epa.gov]; Ball, Joel [ball.joel@epa.gov]; Wilson, Scott [wilson.scott@epa.gov]; Cieslak, Jeffrey [cieslak.jeffrey@epa.gov]
Subject: Talking Points for Bill Wehrum Lab Tour

Dan, Jim, Joel, Joel, Linc,

Here are updated times and the talking points we plan to cover in Cold and Hot Test.

Thanks,

Maria

Cold Test Facility – where we may also have a “driving experience” while Jim & Joel hit the following talking points

- New Cold Testing Facility test site features (**Bryson**)
- Until this test cell was built, we could not confirm manufacturer Cold CO FTP test data
 - Up to 90% of criteria pollution is emitted during the ambient cold start, as the TWC warms to temp
 - Not testing at sub-ambient 20°F could be a big vulnerability if emissions calibrations aren't confirmed
 - Adjacent space is to “cold soak” so we can test multiple cars/week if needed
- CTF was built anticipating testing requirements of Tier3 and GHG 3, but before regs were finalized
 - LD GHG stds added measuring new N2O pollutants-measured in ppb because N2O has ~300 GWP
 - Tier 3/LEV 3 added PM standards for gas and diesel (new GDI technologies make PM from gas engines)
 - AVL highly flexible test site control system allowed us to easily build custom tests for VW (1-2 days to build & verify, compared to older test site control systems that would be 1-2 weeks per custom cycle)
- Special Tests – our story about finding the Audi 3L defeat device (**Dalton**)

Hot Test Facility

- SC03 testing in the HTF, testing EVs and Hybrids (**McBryde**)
 - Just like CTF, this site was built anticipating Tier 3/LEV 3 requirements – they are “sister” sites in some fundamental ways
 - Heated twin tunnels for emission sampling and
 - 14,000 lbs vehicles & high ceiling for MD trucks, twin rolls to better allow hybrid testing (not just for 4WD ... mention potential of testing in dyno-mode on single roll dyno as risk that can be avoided with twin roll v-sync)
 - Simulated solar loading to burden cars A/C system, which can affect criteria and GHG
 - Road Speed cooling (~60 mph) and high temp (95°F) simulation
- Enforcement cases have predominantly been tested in HTF – description of what we are told to look for & how we perform the tests (**Ball**)

-----Original Appointment-----

From: Haugen, David

Sent: Friday, December 08, 2017 2:33 PM

Cc: OAR-OTAQ-TATD Managers

Subject: Bill Wehrum Lab Tour - Reminder

When: Monday, December 11, 2017 10:45 AM-12:45 PM (UTC-05:00) Eastern Time (US & Canada).

Where:

Times	TOPIC	Key Message	LOCATION	REQUESTED PERSONNEL
10:45 – 11:15 (30 min)	MTE & Technology Assessments	<ul style="list-style-type: none"> • LD technology assessments thru benchmarking & modeling • Know-how is useful for both Reg-Assessments & Compliance 	Small Soak NCAT Area	TATD – Dan Barba, Andy Moskalik, Kevin Newman ASD – Mike Olechiw
11:15-11:20 (5-10 min)	ISO 17025, Metrology, Intro to 3x3 Compliance Strategy	<ul style="list-style-type: none"> • Quality data fit for purpose • Industries trust & rely on us • Changes to compliance post-VW 	Metrology Lab	David Haugen
OPTIONAL: (10-15 min)	Dyno Driving Experience – Driving a Cycle on a Dyno	<i>The core of what NVFEL does</i>	Vehicle Dynos-CTF	CD – Linc Wehrly, Joel Ball (Hot), Joel Dalton (Cold) TATD – Maria Peralta, Jeff Cieslak, Scott Wilson, Jim Bryson, Dan McBryde
11:25-11:40 (15 min)	Lab Expansions, Tier 3, VW Compliance	<ul style="list-style-type: none"> • What's changed since 2008 • Tier 3 fuels & Tier 3\GHG testing • Special Tests - finding the Audi defeat device 	Hot & Cold Test Cells	
11:40-11:50 (10 min)	Small Gasoline Engines	<ul style="list-style-type: none"> • Oversight matters, protecting environmental investments • Competitiveness, imports & trade 	Small Non-Road Engine Cell	TATD – Sterling Imfeld CD – Cle Jackson
11:50-12:00 (10-15 min)	Fuels – Chemistry & Fuel Industry Surveillance	<ul style="list-style-type: none"> • Commercial fuel oversight • Tier 3 cert fuels, fuel storage 	Chemistry Lab	TATD - Bruce Kolowich

12:05-12:15 (10-15 min)	Diesel (HD) Engine Cert	<ul style="list-style-type: none"> • HD/MD engine cert • HD On-Road role, NOx reduction 	Mid-Range Diesel Engine Cell	CD - Alan Duncan TATD – Ruonan Sun
12:15-12:30 (15 min)	Real World Testing (PEMS & Signature Device)	<ul style="list-style-type: none"> • Understanding vehicle emissions & technologies “on the road” • Emissions Inventory 	530 HD Prep Area	TATD - Maria Peralta, Ethan Schauer
12:30-12:45 (15 min)	HD Truck & Bus Emissions	<ul style="list-style-type: none"> • Measuring HD vehicle GHG/FE, PM, NOx. • Understanding HD vehicle tech. • Gliders, etc 	HD Chassis Dyno	ASD – Brian Nelson TATD – Scott Ludlum